Claims

What is claimed is:

1. A semiconductor resistor, comprising:

a resistor body formed on a semiconductor substrate;

first and second conductive terminals electrically connected to the resistor body at opposite ends thereof; and

at least first and second conductive paths between at least one of the first and second conductive terminals and the resistor body;

wherein the at least one conductive terminal is configured such that a resistance of the at least one conductive terminal between the at least first and second conductive paths is substantially matched to a resistance of the resistor body between the at least first and second conductive paths.

2. The semiconductor resistor of claim 1, wherein a given one of the at least first and second conductive paths comprises one or more contacts.

3. The semiconductor resistor of claim 1, wherein a given one of the at least first and second conductive paths comprises a row of contacts.

4. The semiconductor resistor of claim 1, wherein at least one of the at least first and second conductive paths comprises a resistive element connected between the at least one conductive terminal and the resistor body, the resistive element having a resistance associated therewith that is substantially equal to the resistance of the resistor body between the at least first and second conductive paths.

5. The semiconductor resistor of claim 4, wherein the resistive element is formed above and proximate to at least a portion of the resistor body.

6. The semiconductor resistor of claim 1, wherein at least one of the at least first and second conductive paths comprises a resistive element connected between the at least one conductive terminal and the resistor body, the resistive element including a plurality of alternating higher level and lower level conductors connected together by a plurality of conductive vias to form a series chain structure, a resistance of the resistive element being substantially matched to the resistance of the resistor body between the at least first and second conductive paths.

7. The semiconductor resistor of claim 6, wherein a resistance of the series chain structure is determined, at least in part, by at least one of a number of higher level and lower level conductors in the chain structure and one or more characteristics associated with the higher level and lower level conductors.

8. The semiconductor resistor of claim 7, wherein the one or more characteristics associated with the higher level and lower level conductors in the chain structure comprises at least one of a resistivity of the higher level and lower level conductors and at least one dimension associated with the higher level and lower level conductors.

9. The semiconductor resistor of claim 6, wherein the higher level conductors are formed in a second metal layer and the lower level conductors are formed in a first metal layer, the first and second metal layers being separated from one another by at least one insulating layer.

10. The semiconductor resistor of claim 6, wherein the chain structure is formed above and proximate to the resistor body.

11. The semiconductor resistor of claim 1, wherein for each of the first and second conductive terminals, a resistance of the conductive terminal between corresponding at least first and second conductive paths is substantially matched to a resistance of the resistor body between the corresponding at least first and second conductive paths.

12. The semiconductor resistor of claim 1, wherein the resistor body comprises polysilicon and at least one of the conductive terminals comprises a metal.

13. An integrated circuit including at least one semiconductor resistor, the at least one semiconductor resistor comprising:

a resistor body formed on a semiconductor substrate;

first and second conductive terminals electrically connected to the resistor body at opposite ends thereof; and

at least first and second conductive paths between at least one of the first and second conductive terminals and the resistor body;

wherein the at least one conductive terminal is configured such that a resistance of the at least one conductive terminal between the at least first and second conductive paths is substantially matched to a resistance of the resistor body between the at least first and second conductive paths.

14. The integrated circuit of claim 13, wherein at least one of the at least first and second conductive paths comprises a resistive element connected between the at least one conductive terminal and the resistor body, the resistive element having a resistance associated therewith that is substantially equal to the resistance of the resistor body between the at least first and second conductive paths.

15. The integrated circuit of claim 13, wherein at least one of the at least first and second conductive paths comprises a resistive element connected between the at least one conductive terminal and the resistor body, the resistive element including a plurality of alternating higher level and lower level conductors connected together by a plurality of conductive vias to form a series chain structure, a resistance of the resistive element being substantially matched to the resistance of the resistor body between the at least first and second conductive paths.

16. The integrated circuit of claim 15, wherein a resistance of the series chain structure is determined, at least in part, by at least one of a number of higher level and lower level conductors in the chain structure and one or more characteristics associated with the higher level and lower level conductors.

17. The integrated circuit of claim 16, wherein the one or more characteristics associated with the higher level and lower level conductors in the chain structure comprises at least one of a resistivity of the higher level and lower level conductors and at least one dimension associated with the higher level and lower level conductors.

18. A method of forming a semiconductor resistor including a resistor body and first and second conductive terminals electrically connected to the resistor body at opposite ends thereof, the method comprising the steps of:

for at least one of the first and second conductive terminals, defining a plurality of conductive paths between the at least one conductive terminal and the resistor body;

determining a resistance of the at least one conductive terminal between two of the plurality of conductive paths; and

substantially matching a current distribution between the two conductive paths.

19. The method of claim 18, wherein the step of substantially matching a current distribution between the two conductive paths comprises matching the resistance of the at least one conductive terminal between the at least two conductive paths to a resistance of the resistor body between the two conductive paths.

20. The method of claim 18, further comprising the step of connecting a resistive element in at least one of the conductive paths between the at least one conductive terminal and the resistor body, wherein the step of substantially matching the resistance comprises adjusting a resistance of

the resistive element to substantially match the resistance of the resistor body between the two conductive paths.